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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/059,342	01/31/2002	Sung-Koog Oh	P55890A	7473

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EXAMINER

FIORILLA, CHRISTOPHER A

ART UNIT	PAPER NUMBER
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1731

DATE MAILED: 04/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/059,342	OH ET AL.	
	Examiner	Art Unit	
	Christopher A. Fiorilla	1731	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9-13 and 18-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9-13 and 18-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>11/24-8/27-8/26/03</u> . | 6) <input type="checkbox"/> Other: _____ |

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1. Since the examiner improperly failed to examine claims 26-33 (added by preliminary amendment) in the previous office action. This office action is not being made final.
2. The abstract of the disclosure is objected to because it contains a grammatical error. The phrase "a clad layer and a core layer is deposited" should be changed to "a clad layer and a core layer are deposited". Correction is required. See MPEP § 608.01(b).
3. Claims 9,10,12,13,26-29 and 31-33 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for a process wherein the deposited tube is rotated while being heated by the circular heater (see e.g. page 11, lines 11-12; and page 13, line 18 through page 14, line 1), does not reasonably provide enablement for the process as generically claimed. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make or use the invention commensurate in scope with these claims.
4. Claims 9,10,12,13,26-29 and 31-33 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The step of rotating the tube during heating by the circular heater appears to be a critical step as taught by the specification and thus should be included in the claims. See e.g. page 11, lines 11-12; and page 13, line 18 through page 14, line 1.

5. Claims 9-13 and 18-33 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for a process wherein the deposited tube is oriented within the circular heater such that the sealed end is the upper end (see e.g. Fig 2 and p. 10, last paragraph; p.13, line 1), does not reasonably provide enablement for the process as generically claimed. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make or use the invention commensurate in scope with these claims.

6. Claims 9-13 and 18-33 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The step of orienting the tube within the circular heater such that the sealed end is the upper end appears to be a critical step as taught by the specification and thus should be included in the claims. See e.g. Fig 2 and p. 10, last paragraph; p.13, line 1.

7. Claims 9-13,32 and 33 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The specification does not appear to support the limitation added to claim 9, which recites “wherein a flame pressure of said circular heater during the shrinking and closing step is higher than a flame pressure of said first heater during the deposition step”.

8. Claims 9,10,12,13,26-29 and 31-33 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The omitted steps are: rotating the deposited tube while it is being heated by the circular heater.

9. Claims 9-13 and 18-33 rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: the deposited tube is oriented within the circular heater such that the sealed end is the upper end (see e.g. Fig 2 and p. 10, last paragraph; p.13, line 1).

10. Applicant's arguments filed 12/15/03 have been fully considered but they are not persuasive.

With respect to the rejection of claims 9-13 under 35 USC 112, first paragraph applicants argue:

The test of enablement is whether one reasonably skilled in the art could make or use the invention from the disclosures in the patent coupled with information known in the art without undue experiments. *United States v; Teletronics, Inc.*, 867 F.2d 778, 785, 8 USPQ2d 1217, 1223 (Fed. Cir. 1988).

First, the examiner's rejection is neither proper nor clear because claim 9 can be performed without undue experiments.

It is hardly understood why one reasonably skilled in the art could not make the invention from the disclosure without undue experiments. The examiner admitted that the process wherein the deposited tube is rotated while being heated by the circular heater is enabled. In view of this admittance and the feature of claim 9, it is understood that the examiner argued that claim 9 does not meet the enablement requirement because claim 9 does not include the feature of the rotation of the tube. However, this omission of the feature of the rotation of the tube does not make claim 9 improper. The court held that, "a[s] long as the specification discloses at least one method for making the claimed invention that bears a reasonable correlation to the entire scope of the claim, then the enablement requirement of 35 U.S.C. 112 is satisfied. *In re Fisher*, 427 F.2d 833, 839, 166 USPQ 18, 24 (CCPA 1970). Also, failure to disclose other method by which the claimed invention may be made does not render claim invalid under 35 U.S.C. 112. *Sepctra-Physics, Inc. v. Coherent, Inc.*, 827 F.2d 1524, 1533, 3 USPQ2d 1737, 1743 (Fed. Cir), cert. denied, 484 U.S. 954 (1987). In addition, in *In re Kamal and Rogier*, the court clearly held that "the mere possibility of inclusion of inoperative substances, if, indeed, operability is properly questionable under 35 U.S.C. 112, does not prevent allowance of broad claims. *In re Kamal and Rogier*, 158 USPQ 320, 324 (CCPA, 1968)., *In re Sarett*, 51 CCPA 1180, 327 F.2d 1005, 140 USPQ 474 (CCPA, 1964).

Here, the specification discloses a preferred embodiment and the specification discloses at least one method for making and using the claimed invention (i.e., a process wherein the deposited tube is rotated while being heated by the circular heater) that bears a reasonable correlation to the entire scope of the claim. Even if the claim 9 includes the scope of a method without rotating the deposited tube and the examiner properly suspected the possibility of inoperative method, the enablement rejection is merely speculative and there is no factual basis for the enablement rejection (A mere possibility does not render the claim improper.) Moreover, MPEP 2 164.08(b) states that "[t]he presence of inoperative embodiments within the scope of a claim does not necessarily render a claim non-enabled. The standard is whether a skilled person could determine which embodiments that were conceived, but not yet made, would be inoperative or operative with expenditure of no more effort than is normally required in the art. *Atlas Powder Co. v. E.I. du Pont de Nemours & Co.*, 750 F.2d 1569, 1577, 224 USPQ 409, 414 (Fed. Cir. 1984)." Here, a skilled person could determine whether the embodiment wherein the deposited tube is not rotated while heating is inoperative or operative without undue experiment. It should be also noted that the test of enablement is not whether all the scopes of the claim is explicitly shown in the specification, but whether one reasonably skilled in the art could make or use the invention from the disclosures in the patent coupled with information known in the art without undue experiments.

Therefore, since (1) one reasonably skilled in the art could make the invention from the disclosures in the patent coupled with information known in the art without undue experiments; (2) the examiner's enablement rejection is based only on the possibility of inoperability and there is no factual basis for the enablement rejection, and/or (3) a skilled person could determine which embodiments covered by claim 9 would be inoperative or

operative with expenditure of no more effort than is normally required in the art, the examiner's rejection is not proper.

These arguments are not persuasive. A feature which is taught as critical in a specification and is not recited in the claims should result in a rejection of such claim under the enablement provision section of 35 U.S.C. 112. See *In re Mayhew*, 527 F.2d 1229, 1233, 188 USPQ 356, 358 (CCPA 1976). In determining whether an unclaimed feature is critical, the entire disclosure must be considered. Features which are merely preferred are not to be considered critical. *In re Goffe*, 542 F.2d 564, 567, 191 USPQ 429, 431 (CCPA 1976). See MPEP 2164.08(c). In the present case, there is no indication that the rotation of the deposited tube is a preferred feature. Rather, the specification appears to indicate that it is a critical feature of the invention. Not only is it used in the description of the process at pages 11 and 13/14, but other references to the process refer to the part which holds the tube as a lathe. A lathe is a machine on which a piece of material is spun (i.e. rotated). Thus, every indication is that the rotation is a critical feature of the invention. Applicants do not argue that the rotation is not a critical feature, other than an unsubstantiated statement that it is a preferred embodiment (page 10, penultimate line of arguments).

Note that the rejection of claim 11 has been reconsidered in view of applicants' statements and claim 11 has been removed from the rejection. Claim 11 recites that the tube is rotated during shrinking and closing.

With respect to the 35 USC 112, first paragraph rejection of claims 9-13 and 18-25 applicants argue:

Claim 9 explicitly recites the step of "arranging the deposited tube in such a fashion that it extends vertically through a circular heater" and the step of "moving the circular heater to the sealed end of the deposited tube," and claim 18 explicitly states the step of

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"arranging the rod-joined deposited tube vertically and arranging a circular heater around the tube."

Since the specification discloses at least one method (e.g., the method admitted by the examiner in the Office action citing Fig. 2., page 10, the last paragraph; page 13, line 1) for making the claimed invention that bears a reasonable correlation to the entire scope of the claim, then the enablement requirement of 35 U.S.C. 112 is satisfied. Nonetheless, it looks like that the examiner improperly required the applicant to claim only the subject matters (i.e., a process wherein the deposited tube is oriented within the circular heater such that the sealed end is the upper end) which are explicitly disclosed in the preferred embodiment. The examiner's enablement rejection is speculative and there is no factual basis for the inoperativeness. It should be noted that the mere possibility of inclusion of inoperative substances, if, indeed, operability is properly questionable under 35 U.S.C. 112, does not prevent allowance of broad claims. *In re Kamal and Rogier*, 158 USPQ 320, 324 (CCPA, 1968); *In re Sarett*, 51 CCPA 1180, 327 F.2d 1005, 140 USPQ 474 (CCPA, 1964). Furthermore, as stated above (MPEP 2164.08(b)), the presence of inoperative embodiments within the scope of a claim does not necessarily render a claim non-enabled. The standard is whether a skilled person could determine which embodiments that were conceived, but not yet made, would be inoperative or operative with expenditure of no more effort than is normally required in the art. Here, a skilled person could determine whether the embodiments having different orientations of the sealed end is inoperative or operative without undue experiment.

Therefore, since (1) one reasonably skilled in the art could make the invention from the disclosures in the patent coupled with information known in the art without undue experiments; (2) the examiner's enablement rejection is based only on the possibility of inoperability and there is no factual basis for the inoperativeness; and/or (3) a skilled person could determine which embodiments covered by claims 9- 13 and 18-25 would be inoperative or operative with expenditure of no more effort than is normally required in the art, the examiner's rejection is not proper.

These arguments are not persuasive. A feature which is taught as critical in a specification and is not recited in the claims should result in a rejection of such claim under the enablement provision section of 35 U.S.C. 112. See *In re Mayhew*, 527 F.2d 1229, 1233, 188 USPQ 356, 358 (CCPA 1976). In determining whether an unclaimed feature is critical, the entire disclosure must be considered. Features which are merely preferred are not to be considered critical. *In re Goffe*, 542 F.2d 564, 567, 191 USPQ 429, 431 (CCPA 1976). See MPEP 2164.08(c). In the present case, there is no indication that the orientation of the deposited tube such that the sealed end is the upper end is a preferred feature. Rather, the specification

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appears to indicate that it is a critical feature of the invention. It used in the description of the process at page 13 and Figure 2. Thus, every indication is that the rotation is a critical feature of the invention. Applicants do not argue that the orientation is not a critical feature, other than an unsubstantiated statement that it is a preferred embodiment (page 13 of arguments).

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher A. Fiorilla whose telephone number is (571) 272-1187. The examiner can normally be reached on M-F, 6:30am-3:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven P. Griffin can be reached on (571) 272-1189. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Christopher A. Fiorilla
Primary Examiner
Art Unit 1731

caf